

WHAT IS CLAIMED IS:

1. A guided vehicle for use on a roadway having a lane and a plurality of guidepath indicators extending along the roadway for indicating the path of the lane comprising a vehicle body adapted for travel at high speeds on the roadway, a pair of front wheels pivotably coupled to the body and a pair of rear wheels pivotably coupled to the body for steering the body relative to the roadway, a front steering mechanism coupled to the front wheels for pivoting the front wheels relative to the body and a rear steering mechanism coupled to the rear wheels for pivoting the rear wheels relative to the body, at least one sensing unit carried by the body for sensing the guidepath indicators as the body travels along the roadway and providing a signal indicative of the position of the body relative to the guidepath indicators and a controller coupled to the at least one sensing unit and the front and rear steering mechanisms for receiving the signal and controlling the pivoting of the front and rear wheels as a function of the signal.
2. A guided vehicle as in Claim 1 wherein the at least one sensing unit includes a first sensing unit for providing a signal to the controller for pivoting the front wheels and a second sensing unit for providing a signal to the controller for pivoting the rear wheels.
3. A guided vehicle as in Claim 1 wherein the at least one sensing unit includes a video camera mounted on the body for visualizing a plurality of painted lines extending along the roadway.
4. A guided vehicle as in Claim 1 wherein the at least one sensing unit includes an antenna for receiving a signal from a plurality of emitters extending along the roadway.
5. A guided vehicle as in Claim 1 wherein the at least one sensing unit includes a laser source for receiving a laser light signal from a plurality of reflectors extending along the roadway.
6. A guided vehicle as in Claim 1 wherein the at least one sensing unit includes a magnetometer for sensing a plurality of guide magnets extending along the roadway.
7. A guided vehicle as in Claim 1 wherein the rear steering mechanism includes an actuator coupled to the rear wheels.
8. A guided vehicle as in Claim 1 wherein the controller includes a computer.
9. A transportation system for use on a roadway having a lane and a plurality of guidepath indicators extending along the roadway for indicating the path of the lane

comprising a lead vehicle and a trailing vehicle adapted for travel at expressway speeds on the roadway, a coupling mechanism for coupling the trailing vehicle to the lead vehicle, a pair of wheels pivotably coupled to the trailing vehicle for steering the trailing vehicle relative to the roadway, a steering mechanism coupled to the wheels for pivoting the wheels relative to the trailing vehicle, at least one sensing unit carried by one of the lead vehicle and the trailing vehicle for sensing the guidepath indicators as the lead vehicle and the trailing vehicle travel along the roadway and providing a signal indicative of the position of at least a portion of the lead vehicle and the trailing vehicle relative to the guidepath indicators and a controller coupled to the at least one sensing unit and the steering mechanism for receiving the signal and controlling the pivoting of the wheels as a function of the signal so as to maintain the lead vehicle and the trailing vehicle within the confines of the lane.

10. A transportation system as in Claim 9 wherein the at least one sensing unit is carried by the trailing vehicle.

11. A transportation system as in Claim 9 wherein the at least one sensing unit is carried by the trailing vehicle in the vicinity of the wheels.

12. A transportation system as in Claim 9 wherein the coupling mechanism is a coupling mechanism for removably coupling the trailing vehicle to the lead vehicle.

13. A transportation system as in Claim 9 wherein the trailing vehicle includes a motor for powering the trailing the vehicle along the roadway.

14. A transportation system as in Claim 9 wherein the trailing vehicle has a rear, the wheels being disposed at the rear of the trailing vehicle.

15. A method for guiding a vehicle having a pair of front wheels and a pair of rear wheels along a curve of a roadway having a lane comprising providing a plurality of guidepath indicators at spaced-apart intervals along the roadway for indicating the path of the lane along the curve, steering the front wheels of the vehicle to negotiate the curve, providing an electronic sensing unit on the vehicle to sense each of the guidepath indicators during travel of the vehicle along the roadway and to provide a signal indicative of the relative distance between the vehicle and each of the guidepath indicators and steering the rear wheels in response to the signal to maintain the vehicle within the confines of the lane.

16. A method as in Claim 15 wherein the guidepath indicators are positioned along the side of the lane.

17. A method as in Claim 16 wherein the guidepath indicators are positioned in the center of the lane.

18. A method as in Claim 16 wherein the guidepath indicators are magnets.

19. A method as in Claim 16 wherein the guidepath indicators are energy emitters.

5 20. A method as in Claim 16 wherein the guidepath indicators are lines painted on the roadway.